Amendments to the Claims

Listing of Claims:

Claim 1 (currently amended). A transmission and reception method in a digital telecommunications system, which comprises:

at a transmitter end, rotating each data symbol in a predetermined initial sequence known to a receiver through a phase rotation factor specific for a type of modulation being used to thereby form rotated data symbols;

at a receiver end, derotating the rotated data symbols through different phase rotation factors to generate a derotated sequence; and

forming a single correlation function between the derotated sequence and the initial sequence based on an assumed temporal position of the initial sequence contained in the received a signal received at the receiver end for each phase rotation factor, wherein a temporal position of the initial sequence is known up to a certain accuracy;

forming a summation of products between the derotated sequence and the initial sequence for individual moments in time from the correlation function, and squaring a magnitude of the summation to form squares; and

comparing the squares of the magnitudes and determining therefrom a modulation type used at the transmitter end.

Claim 2 (original). The transmission and reception method according to claim 1, wherein the initial sequence is a training sequence of a data burst.

Claim 3 (original). The transmission and reception method according to claim 1, which comprises forming the correlation function between the received sequences and the initial sequence in an original, unfiltered state.

Claim 4 (currently amended). A receiver for a digital telecommunications system, comprising:

means for receiving a data signal from a transmitter, the data signed and containing an initial sequence known to said receiver and having each data symbol being rotated through a phase rotation factor;

means connected to said receiving means for derotating the data symbols in the received initial sequence through different phase rotation factors;

means for forming a single correlation function between the sequence obtained by said derotating means and the initial sequence on the basis of an assumed temporal position of the initial sequence contained in the received signal for each phase rotation factor, wherein a temporal position of the initial sequence is known up to a certain accuracy;

means for forming a summation of products between the sequence obtained by said derotating means and the initial sequence for individual moments in time;

means for squaring a magnitude of a summation for forming squares; and

means for determining a maximum of the squares formed in said squaring means

and determining therefrom a modulation type used at the transmitter.

Claim 5 (new). The transmission and reception method according to claim 1, which

comprises forming the correlation function several times successively, thereby

forming one correlation function at an assumed temporal position of the initial

sequence contained in the received signal, and forming further correlation functions

by shifting the received sequence and the initial sequence incrementally in time with

respect to one another.